



### 2010 MVP2 Award Recipients



#### Volunteers of the Year

Andy Bray, NEWMOA

Andy has been a board member since 2007. He is the current Board liaison for two workgroups, Tribal and P2 Results Task Force.

#### P2 Champions

Phil Kaplan, U.S. EPA Region 5, Retired

Phil Kaplan served as the Region 5 pollution prevention coordinator for approximately 25 years. Phil was the voice of pollution prevention for Region 5 to headquarters and the states. Each year, Phil would poll the states, asking them what their pollution prevention needs were, and consolidate these into the funding priority list in the RFP. He also provided support for the Great Lakes Regional Pollution Prevention Roundtable (GLRPPR). Phil would attend the National Environmental Partnership Summit, and encouraged grantees to present at both conferences to share grant results.

Tim Lindsey, Illinois Sustainable Technology Center (ISTC)

Dr. Tim Lindsey currently serves as the Associate Director of ISTC. He has head ISTC's technical assistance program since 1991. Tim is best known for his pioneering work in developing the Accelerated Diffusion of Pollution Prevention Technologies (ADOP<sup>2</sup>T), a model for technology diffusion that speeds the transfer of better environmental technologies and processes from the bench to the plant floor. He was the driving force behind the Sustainable Electronics Initiative (SEI). He has taken his work overseas to address sustainability problems in Haiti.

#### Projects/Programs

AW Chesterton - *Development of a New Block Valve Based Compression Packing Product for use in Sealing Emissions from both the Valve Stem and Stuffing Box Bore*

- Produce mechanical seals and compression packing materials that allow customers to handle noxious and toxic substances.
- Single spool packing for block valves allows users to reduce their VOC emissions to well below a 50 ppm limit without the need for a regular system retorquer.
- AW Chesterton's new product effectively reduces the certified limit to 14 ppm without the need for further LDAR evaluation or equipment retorquer.
- Stationary Sealing tem provided on-site to help local customers.
- Developed special programs to help customers reduce environmental impact.
- Water Savings Program Implemented in 2009
  - Helped save customers in Pulp & Paper industry up to 5% to 10% of daily water usage.

BAE Systems - *Carbon Footprint Reduction Program*

- Energy Management team at BAE Systems created carbon management program in 2009.
- Decreased carbon emissions in GNY by 6,700 tons while lowering annual utility consumption by 38%.
- Lighting retrofit projects not only reduced cost to illuminate by 30%, they also take advantage of the new low mercury or green florescent bulb technology.
- Recycle more than 54% of our entire waste stream generated by our 500,000 sq. foot campus.
- Three Phase Process:
  - Conservation Projects with 0-12 month payback
  - Using funding from phase 1 savings, implement projects with a simple payback of 12-24 months.
  - Using savings from phase 2, implement projects with a payback period of 24-48 months.
  - Implemented a Smart Irrigation System that exceeded USGBC LEED 3.0 Water efficiency.
  - Reduced water usage by, 100 million gallons and save \$140,000 annually.
  - BAE Systems has qualified for the ISO 1400 Environmental Certification.

Illinois Sustainable Technology Center (ISTC) - *Sustainable Electronics Initiative (SEI)*

- The Sustainable Electronics Initiative is a consortium dedicated to the development and implementation of a more sustainable system for designing, producing, and remanufacturing electronic devices.
- A total of 242,166 pounds of residential electronics have been collected in 2010.
- SEI facilitates collaborative research in the following areas:
  - Design
  - Processing
  - Remanufacturing
  - Sustainability
  - Life Cycle
  - Waste Management
  - Logistics

IBM Burlington - *PerFluoro Octyl Sulfonate (PFOS) and PFOA (perfluorooctanoic acid) Elimination in IBM's Semiconductor Process Chemicals*

- Cooperative project between IBM Burlington and IBM East Fishkill in New York state that required an extensive and parallel development effort at the two semiconductor fabrication (fab) facilities
- In 2006, the total amount of PFOS/PFOA usage was 140 kilograms (kg). This was followed by 53.5 kg in 2007, 24.8 kg in 2008, 9 kg in 2009 and only 0.01 kg in 2010.
- As of January 2010, IBM is producing semiconductor products without the use of PFOS or PFOA for all its customers

IBM East Fishkill - *Chemical Usage Reduction*

- The chemical usage reductions were investigated using LEAN manufacturing techniques.
- As a result, chemical savings totaling \$3.0M – 4.0M per year were achieved for one-time process qualification and implementation costs (i.e., manpower, software changes) estimated at \$300K – 400K.
- Approximately 18,000,000 pounds per year of chemical reductions were achieved comparing 2007 to 2009 usage despite a 5% increase in production.

Maryland Department of the Environment - *Maryland Green Registry*

- Governor Martin O'Malley launched Maryland Green Registry in June of 2009.
- Maryland Green Registry is a voluntary program designed to promote and recognize environmentally sustainable practices in organizations of all types and sizes throughout the State.
- It focuses on P2, over recycling etc. To join the registry organizations must share their best P2 practice in 5 environmental management areas, and at least one must show measurable result.
- Provides info on P2 Resources, including free on-site P2 technical assistance and funding opportunities.
- \$24 million saved from the best practices

U.S. Forest Service - *Western Collective*

- The Regional Foresters in the Intermountain West partnered to develop and implement a Sustainable Operations Program designed to reduce pollution and "change the mindset" of their employees by linking their consumption habits to the stewardship model used to manage the nation's forests and grasslands in their care.
- Energy Use in Facilities - BTU's saved: 964 billion BTUs; \$ saved: \$10,098,000
- Fleet - Reduced driving by 720,000 miles; Use of biodiesel: increased by 12,800 gal. (57% increase from base year); Use of E85: increased by 90,800 gal (1,121 % increase from base year)
- Water Use in Facilities - Gallons water saved: 970,131,000 decrease from baseline
- Green Purchasing - Total FS spending: \$1,150,000,000; \$4,510,391 spent on bio-based products
- Waste Prevention and Recycling - 30 % of FS sites have recycling programs; 999 FS sites have a recycling program

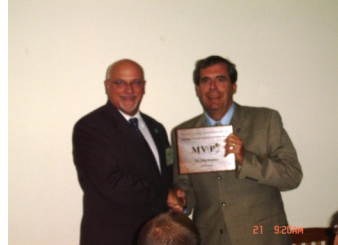
#### Publications

Kentucky Pollution Prevention Center

*Carbon Sequestration Through Agriculture and Forestry Management (Forum Summary)*



P2 Champion  
Phil Kaplan



P2 Champion  
Tim Lindsey



P2 Champions  
Tim Lindsey & Phil Kaplan



AW Chesterton  
Ian Baynes & Phillip Mahoney



BAE Systems  
Sean Delehanty, Morgan Rooney & Donne Linke-Kline



ISTC  
Tim Lindsey, Manohar Kulkarni, William Bullock & Willie Cade



IBM Burlington  
Chip Whiting, Karen Abrahamovich, Pushkara Rao Varanasi & Richard Kaplan



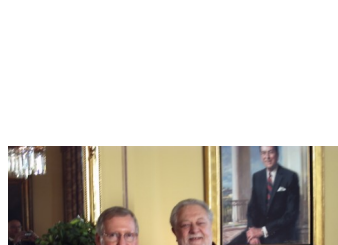
IBM East Fishkill  
David Hilscher, Randall Duggan, & Steve Hawkins



Maryland Department of the Environment  
Laura Armstrong



U.S. Forest Service  
Jerry Perez & Jacqueline Emanuel



KPPC  
Cam Metcalf & Senator Mitch McConnell